
Site Preparation

During construction of ponds to be used primarily for fishing, remove all brush, trees, and vegetation from near-shore areas of the pond before it is filled, so the pond can be seined to remove excess sunfish if necessary. If desired, habitat structures like stumps, logs, brush piles or standing bushes can be left in some areas of the pond to provide cover for small fish and attract larger fish for anglers. To prevent soil erosion, revegetate the dam and pond banks as soon as possible after construction has been completed. New ponds should be filled by early to mid-fall to coincide with the best period for stocking sunfish.

Size

The best fishing ponds have a surface area of at least 1 acre. Ponds of less than 1 acre are difficult to manage because the fish populations, especially largemouth bass, are easily overharvested. In addition, small, shallow ponds are susceptible to vegetation problems that usually result in overpopulation of sunfish. These problems ultimately result in stunted growth of both bass and sunfish. The fish populations in ponds of less than 1 acre are also adversely affected by drought. If you have a small pond and cannot afford to enlarge it, the best management tactic is to stock it with a single species of fish, such as channel catfish or hybrid sunfish, and begin a feeding program (discussed in a later section).

Depth

The average depth for a 1-acre or larger fish pond should be between 6 and 8 feet with a maximum depth not greater than 10 to 12 feet. An average depth less than 6 feet greatly increases the probability of aquatic vegetation becoming established in the pond. Depths greater than 12 feet are not necessary for good fish production and increase the chance of fish kills from summertime oxygen depletion. Pond banks should be cut on a 3-to-1 slope and should be a minimum of 3 feet deep at the waterline before leveling off (Figure 1). This shape will help prevent the growth of nuisance aquatic vegetation and will also discourage muskrats.

Water Control Structure

An important feature that should be incorporated into the design of all fish ponds greater than 1 acre is a water control structure (drainpipe). A drainpipe enables you to drain the pond to make repairs, fix leaks, and control nuisance aquatic vegetation. It also makes it possible to treat and remove undesirable fish species chemically and to manage the fish population more effectively. In addition, a drainpipe that incorporates a bottom drawoff device (Figure 2) ensures good water quality and reduces the chances of a fish kill by removing stagnant water from the bottom of the pond. Ponds tend to stratify in summer and winter, resulting in a stagnant bottom layer that is low in dissolved oxygen and may contain high concentrations of toxic gases (such as carbon dioxide, hydrogen sulfide, and ammonia).